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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,405	10/16/2001	Takashi Hosotani	50340-110	3180

7590 09/08/2005

Robert L. Price  
McDERMOTT, WILL & EMERY  
600 13th Street, N.W.  
Washington, DC 20005-3096

EXAMINER

JULES, FRANTZ F

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/977,405	HOSOTANI ET AL.	
	Examiner	Art Unit	
	Frantz F. Jules	3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07/11/2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/7&amp;8/18/05</u> | 6) <input type="checkbox"/> Other: _____  |

*[Handwritten signature]*

## DETAILED ACTION

### *Claim Objections*

1. Claim 15 is objected to because of the following informalities:

In claim 15, line 2, the word "an" should be deleted to improve the clarity of the claim language.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 15 is rejected under 35 U.S.C. 102(b) as being anticipated by Kinohsita (JP 61-14881).

Kinoshita discloses an axle supporting structure for industrial vehicles comprising axle supporting wheels (X), a vehicle frame (4), and a pair of links (19) which connect the axle and the vehicle frame, each of the links having a respective end being directly and pivotably mounted to the axle at both ends and the links being disposed upwardly of the axle in a vertical direction and being disposed symmetrically about the center of the vehicle and inclined symmetrically with respect with respect to each other in a trapezoidal arrangement as shown in fig. 4-5 since the vehicle frame and axle constitute two parallel side thereby meeting the limitation of a trapezoid, in which an interval between connecting points of the links to the vehicle frame is narrower than an interval

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between connecting points of the links to the axle, wherein the pair of links (19) incline differently according to the relative displacement of the axle and the vehicle frame in the left and right direction as steering of the vehicle will produce this effect, and the posture of the vehicle is thereby controlled.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson (US 1,127,608) in view of Chan et al (US 6,357,768).

Ferguson discloses an axle supporting structure for industrial vehicles comprising an axle supporting wheels (X) a vehicle frame (4) and a pair of links (31) which connect both ends of the axle and the vehicle frame, the links being disposed upwardly of the axle in a vertical direction and being disposed symmetrically about the center of the vehicle and inclined symmetrically with respect with respect to each other in a trapezoidal arrangement since the vehicle frame (4) and the axle (3) are parallel sides, in which an interval between connecting points of the links to the vehicle frame is narrower than an interval between connecting points of the links to the axle, wherein the pair of links (31) incline differently according to the relative displacement of the axle and the vehicle frame in the left and right direction as steering of the vehicle will produce this effect, and the posture of the vehicle is thereby controlled.

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Ferguson discloses all of the features as listed above but does not disclose an axle supporting structure comprising links that are directly and pivotably mounted to the axle at both ends. The general concept of providing link members that are directly and pivotally connected to both end of an axle is well known in the art as illustrated by Chan et al which disclose the teaching of links that are directly and pivotably mounted to the axle at both ends. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ferguson to include the use of links that are directly and pivotably mounted to the axle at both ends in his advantageous axle supporting structure as taught by Chan et al in order to improve on the damping characteristics of the suspension while reducing the number of parts in the assembly.

### ***Response to Arguments***

6. Applicant's arguments filed 07/11/2005 have been fully considered but they are moot in view of the new ground of rejection.

Claims 1-14 stand withdrawn from further consideration.

Applicant's amendment of claim 15 to incorporate the limitation of "in which an interval between connecting points of the links to the vehicle frame is narrower than an interval between connecting points of the links to the axle" fails to distinguish over the Ferguson reference. Applicant's argument regarding the previous rejection of claim 15 over the Willingham and Cruz reference is valid and force the withdraw of the previous rejection of the claims over Willingham and Cruz. Moreover, the disclosure of an axle comprising links that are directly and pivotally mounted to an axle is well known in the art. The Chan et al reference establish a prima facie case of obviousness to one ordinary skill in

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the art who would incorporate the teaching of mounting an axle link directly to an axle in order to achieve among others the benefit of reducing failure in the link assembly.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 308-8780. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 308-0230. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz F. Jules  
Primary Examiner  
Art Unit 3617

FFJ

February 7, 2005

FRANTZ F. JULES  
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Frantz', with a long horizontal flourish extending to the left and a small circular mark at the end.